



	InSem Examination-II Summer2024		
	Exam Seat No.:		
	Academic Year: 2023-2024	Semester: II	
	Name of Programme: M.Tech	Pattern: 2022	
	Name of Course: Analysis and Design of Earthquake Resistant Structures	Course Code: CIV225110A	
	Max. Marks: 30	Duration: 1	
	Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use. 1. This question paper contains 2 page(s). 2. Answer to each new question is to be started on a new page. 3. Assume suitable data wherever required, but justify it. 4. Draw the neat labelled diagrams, wherever necessary. 5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.		

Question No. 1 Attempt following Question

- a) Explain difference between magnitude & intensity. (5) C01, CO2

OR

- b) Define response spectra & state use of it. (5) C01, CO2
- c) Explain with neat sketches (10) C01, CO2
i) Seismograph & its working ii) Epicenter, Hypocenter & Epicentral distance

OR

- d) Explain different classification of earthquakes. (10) C01, CO2

Question No. 2 Attempt following Question

- a) A building having non uniform distribution of mass as shown in Fig -2. Locate its Centre of Mass. (5) C01, CO2

OR

- b) Explain weak story and soft story in buildings. (5) C01, CO2

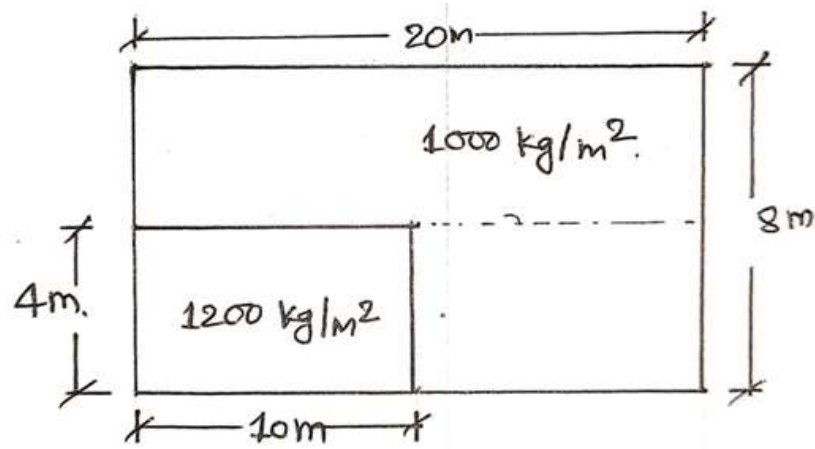
- c) Explain philosophy of earthquake resistant buildings with suitable sketches.

(10) C01,
CO2

OR

- d) What is torsion in structure? State effect of torsion on structure. Explain with neat sketches how torsion is developed in structure.

(10) C01,
CO2



Q2 (a) --- Fig:- 2